



Louisiana Office of Public Health
Infectious Disease Epidemiology Section
Phone: 1-800-256-2748
Fax: (504) 568-5006

- A simple rule of thumb: .Boil it, cook it, peel it, or forget it.

Is there a vaccine available to prevent cholera?

A vaccine for cholera is available; however, it provides only a brief and incomplete immunity and is not recommended for travelers.

Information on Cholera

What is cholera?

Cholera is an acute, diarrheal illness caused by infection of the intestine with the bacterium *Vibrio cholerae*.

What are the symptoms of cholera?

The infection is often mild or without symptoms, but sometimes it can be severe. Approximately one in 20 infected persons has severe disease with symptoms of profuse watery diarrhea, vomiting, and leg cramps. In these persons, rapid loss of bodily fluids leads to dehydration and shock. Without treatment, death can occur within hours.

How does a person get cholera?

A person may get cholera by drinking water or eating food contaminated with the cholera bacterium. The disease can spread rapidly in areas with inadequate treatment of sewage and drinking water.

The cholera bacterium may also live in the environment in brackish rivers and coastal waters. Shellfish eaten raw have been the source of cholera, and a few people in the United States have contracted cholera after eating raw or undercooked shellfish from the Gulf of Mexico.

The disease is not likely to spread directly from one person to another; therefore, casual contact with an infected person is not a risk for becoming ill.

What is the risk for cholera in the United States?

In the United States, cholera has been virtually eliminated due to modern sewage and water treatment systems. However, travelers to parts of Latin America, Africa, or Asia may be exposed to the cholera bacterium.

What should travelers do to avoid getting cholera?

The risk for cholera is very low for U.S. travelers. When simple precautions are observed, contracting the disease is unlikely.

- Drink only water that you have boiled or treated with chlorine or iodine. Other safe beverages include tea and coffee made with boiled water and carbonated bottled beverages with no ice.
- Eat only foods that have been thoroughly cooked and are still hot, or fruit that you have peeled yourself.
- Avoid undercooked or raw fish or shellfish, including ceviche.
- Make sure all vegetables are cooked and avoid salads.
- Avoid foods and beverages from street vendors.
- Do not bring perishable seafood back to the US.

Can cholera be treated?

Cholera can be simply and successfully treated by immediate replacement of the fluids and salts lost through diarrhea. Patients can be treated with oral rehydration solution, a prepackaged mixture of sugar and salts to be mixed with water and drunk in large amounts. This solution is used throughout the world to treat diarrhea. Severe cases may require intravenous fluid replacement. With prompt rehydration, less than 1% of cholera patients die. Antibiotics may shorten the duration and diminish the severity of the illness, but they are not as important as rehydration.



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Information on Vibrios

What is a Vibrio infection?

Vibrio is a type of bacteria whose natural environment is seawater. This bacteria is not related to pollution in any way and grows well in warm water. It is commonly found in seafood, specifically oysters and clams from the Gulf Coast as well as from the Atlantic and Pacific coasts.

Laboratory testing suggests that *Vibrio vulnificus* may be found in 20-50% of raw shellfish on the market. *Vibrio* infections are a rare cause of disease.

What type of illness does Vibrio infections cause?

Vibrio bacteria can cause disease in those who eat contaminated seafood or have an open wound that is exposed to seawater. Among healthy people, ingestion of Vibrio bacteria can cause vomiting, diarrhea, and abdominal pain. In immunocompromised persons, particularly those with chronic liver disease, Vibrio infections can infect the bloodstream, causing severe and life-threatening illnesses characterized by fever and chills, decreased blood pressure, and blistering skin lesions. *Vibrio vulnificus* bloodstream infections are fatal about 50% of the time.

How do persons get infected with Vibrio bacteria?

People become infected with Vibrio by eating raw or undercooked seafood especially oysters and clams. Since it is naturally found in warm marine waters, people with open wounds can be exposed to the Vibrio bacteria through direct contact with seawater.

There is no evidence for person-to-person transmission of Vibrio infections.

Can Vibrio infections be treated?

Vibrio infections can be treated with antibiotics.

How can Vibrio infections be prevented?

- Do not eat raw oysters or other shellfish.
- Cook shellfish thoroughly.
- Do not eat shellfish that do not open during cooking.
- Avoid cross-contamination of cooked seafood and other foods with raw seafood and juices.
- Eat shellfish promptly after cooking and refrigerate leftovers.
- Avoid exposure of open wounds or broken skin to warm salt or brackish water, or to raw shellfish harvested from such waters.
- Wear protective clothing (gloves) when handling raw shellfish.

Most persons have no problem if they ingest this bacteria however, persons with certain medical conditions are at risk of developing serious disease if they ingest Vibrio bacteria.

- Liver disease including cirrhosis
- Kidney disease
- Chronic intestinal disease
- Severe diabetes
- Alcoholism
- Achlorhydria (reduced acidity in the stomach)
- Hemochromatosis (abnormal iron metabolism)
- Cancer, chemotherapy, prolonged steroid therapy, and any other condition that may cause a person to have a compromised immune system



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Information on *Vibrio vulnificus*

What is *Vibrio vulnificus*?

Vibrio vulnificus is a bacteria whose natural environment is seawater. This bacteria is not related to pollution in any way and grows well in warm water. It is commonly found in seafood, specifically oysters and clams from the Gulf Coast as well as from the Atlantic and Pacific coasts. Laboratory testing suggest that *Vibrio vulnificus* may be found in 20-50% of raw shellfish on the market. *Vibrio vulnificus* is a rare cause of disease, but it is also under reported.

What type of illness does *Vibrio vulnificus* cause?

Vibrio vulnificus can cause disease in those who eat contaminated seafood or have an open wound that is exposed to seawater. Among healthy people, ingestion of *Vibrio vulnificus* can cause vomiting, diarrhea, and abdominal pain. In immunocompromised persons, particularly those with chronic liver disease, *Vibrio vulnificus* can infect the bloodstream, causing severe and life-threatening illnesses characterized by fever and chills, decreased blood pressure, and blistering skin lesions. *Vibrio vulnificus* bloodstream infections are fatal about 50% of the time.

How do persons get infected with *Vibrio vulnificus*?

People become infected with *Vibrio vulnificus* by eating raw or undercooked seafood especially oysters and clams. Since it is naturally found in warm marine waters, people with open wounds can be exposed to *Vibrio Vulnificus* through direct contact with seawater.

There is no evidence for person to person transmission of *Vibrio vulnificus*.

Can *Vibrio vulnificus* infection be treated?

Vibrio vulnificus infection can be treated with antibiotics.

How can *Vibrio vulnificus* infection be prevented?

- Do not eat raw oysters or other shellfish.
- Cook shellfish thoroughly.
- Do not eat shellfish that do not open during cooking.
- Avoid cross-contamination of cooked seafood and other foods with raw seafood and juices.
- Eat shellfish promptly after cooking and refrigerate leftovers.
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Most persons have no problem if they ingest this bacteria however, persons with the following medical conditions are at risk of developing serious disease if they ingest *Vibrio vulnificus*.

- Liver disease including cirrhosis
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- Cancer, chemotherapy, prolonged steroid therapy, and any other condition that may cause a person to have a compromised immune system